

EXHIBIT B



Auto-Reply Facsimile Transmission



TO: Fax Sender at 7038164100

Fax Information

Date Received:

Total Pages:

3/12/2004 1:59:49 PM [Eastern Standard Time]
14 (including cover page)

ADVISORY: This is an automatically generated return receipt confirmation of the facsimile transmission received by the Office. Please check to make sure that the number of pages listed as received in Total Pages above matches what was intended to be sent. Applicants are advised to retain this receipt in the unlikely event that proof of this facsimile transmission is necessary. Applicants are also advised to use the certificate of facsimile transmission procedures set forth in 37 CFR 1.8(a) and (b), 37 CFR 1.6(f). Trademark Applicants, also see the Trademark Manual of Examining Procedure (TMEP) section 306 et seq.

Received
Cover
Page
=====>

03/12/2004 14:02 NIXON+VANDERHYE + 7038729306	NO. 156 D001
<p style="text-align: center;">Nixon & Vanderhye PC ATTORNEYS AT LAW</p> <p>8TH FLOOR 1100 NORTH GLEBE ROAD ARLINGTON, VIRGINIA 22201-4714</p> <p>TELEPHONE: (703) 816-4000 FACSIMILE: (703) 816-4100 WRITER'S DIRECT DIAL NUMBER: (703) 816-4057</p> <p style="text-align: center;">FACSIMILE COVER SHEET PLEASE DELIVER IMMEDIATELY!!!!</p> <p>Our Ref.: 4377-62 Your Ref.: 09/859,503 Date: March 12, 2004</p> <p>To: Commissioner for Patents c/o Examiner M. BERCH Firm: United States Patent Office</p> <p>Facsimile No.: 703-872-9306 From: Willem F. Gadiano</p> <p>Number of Pages (including cover sheet): 14 (IF YOU DO NOT RECEIVE ALL OF THE PAGES OR ENCOUNTER DIFFICULTIES IN TRANSMISSION, PLEASE CONTACT US IMMEDIATELY AT (703-816-4000).</p> <p style="text-align: center;">ewm FACSIMILE OPERATOR</p> <p>ATTACHMENT/S:</p> <p>1. Amendment in connection with Reply Brief (13 Pages).</p>	

2004 MAR 12 PM 2:59
NIXON & VANDERHYE PC

CONFIDENTIALITY NOTE

The documents accompanying this facsimile transmission contain information belonging to Nixon & Vanderhye, which is confidential and/or legally privileged. This information is only intended for the use of the individual or entity named above. IF YOU ARE NOT THE NAMED RECIPIENT, YOU ARE HEREBY NOTIFIED THAT ANY DISCLOSURE, COPYING, DISTRIBUTION OR TAKING OF THIS INFORMATION FOR ANY USE WHATSOEVER IS STRICTLY PROHIBITED. If you have received this facsimile in error, please immediately contact us by telephone to arrange for return of the original documents to us.



MESSAGE CONFIRMATION

03/12/2004 14:06
ID=NIXON+VANDERHYE

DATE	S,R-TIME	DISTANT STATION ID	MODE	PAGES	RESULT	
03/12	02'31"	USPTO	CALLING	014	OK	0000

03/12/2004 14:02 NIXON+VANDERHYPE → 7038729306 NO. 156 P001

Nixon & Vanderhye PC

ATTORNEYS AT LAW

8TH FLOOR
1100 NORTH GLEBE ROAD
ARLINGTON, VIRGINIA 22201-4714

TELEPHONE: (703) 816-4000
FACSIMILE: (703) 816-4100
WRITER'S DIRECT DIAL NUMBER:
(703) 816-4057

FACSIMILE COVER SHEET
PLEASE DELIVER IMMEDIATELY!!!!

Our Ref.: 4377-62
Your Ref.: 09/859,503 Date: March 12, 2004

To: Commissioner for Patents c/o Examiner M. BERCH
Firm: United States Patent Office
Facsimile No.: 703-872-9306
From: Willem F. Gadiano

Number of Pages (including cover sheet): **14**

**(IF YOU DO NOT RECEIVE ALL OF THE PAGES OR ENCOUNTER DIFFICULTIES IN TRANSMISSION,
PLEASE CONTACT US IMMEDIATELY AT (703-816-4000).**

ewm
FACSIMILE OPERATOR



Nixon & Vanderhye P.C.
ATTORNEYS AT LAW

8TH FLOOR
1100 NORTH GLEBE ROAD
ARLINGTON, VIRGINIA 22201-4714

TELEPHONE: (703) 816-4000
FACSIMILE: (703) 816-4100
WRITER'S DIRECT DIAL NUMBER:
(703) 816-4057

FACSIMILE COVER SHEET
PLEASE DELIVER IMMEDIATELY!!!!

Our Ref.: 4377-62
Your Ref.: 09/859,503 Date: March 12, 2004

To: Commissioner for Patents c/o Examiner M. BERCH
Firm: United States Patent Office
Facsimile No.: 703-872-9306
From: Willem F. Gadiano

Number of Pages (including cover sheet): 14

**(IF YOU DO NOT RECEIVE ALL OF THE PAGES OR ENCOUNTER DIFFICULTIES IN TRANSMISSION,
PLEASE CONTACT US IMMEDIATELY AT (703-816-4000).**

ewm
FACSIMILE OPERATOR

ATTACHMENT/S: _____

1. Amendment in connection with Reply Brief (13 Pages).

CONFIDENTIALITY NOTE

The documents accompanying this facsimile transmission contain information belonging to Nixon & Vanderhye, which is confidential and/or legally privileged. This information is only intended for the use of the individual or entity named above. **IF YOU ARE NOT THE NAMED RECIPIENT, YOU ARE HEREBY NOTIFIED THAT ANY DISCLOSURE, COPYING, DISTRIBUTION OR TAKING OF THIS INFORMATION FOR ANY USE WHATSOEVER IS STRICTLY PROHIBITED.** If you have received this facsimile in error, please immediately contact us by telephone to arrange for return of the original documents to us.

CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that this document (including any paper referred to as being attached or enclosed) is being sent to the U.S. Patent and Trademark Office via facsimile transmission to (703) 872-9306 on the date indicated below, with a coversheet addressed to Commissioner for Patents, U.S. Patent and Trademark Office, Washington, D.C., 20231.

Date: May 12, 2004
By: W. F. Gadiaro
William F. Gadiaro, Registration No. 37,136



Docket No.: 4377.0062

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of :
Marc J. MCKENNON, et al. : Confirmation No.: 5034
Application No.: 09/859,503 : Group Art Unit: 1624
Filed: May 18, 2001 : Examiner: M. Berch
For: PYRIDOPYRIMIDINE COMPOUNDS AND THEIR USES

AMENDMENT

Commissioner for Patents
Washington, DC 20231

Sir:

This paper is concurrently submitted with a Reply Brief in the above-captioned patent application.

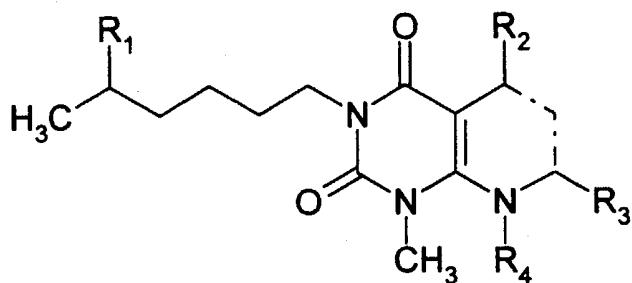
Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks/Arguments begin on page 12 of this paper.

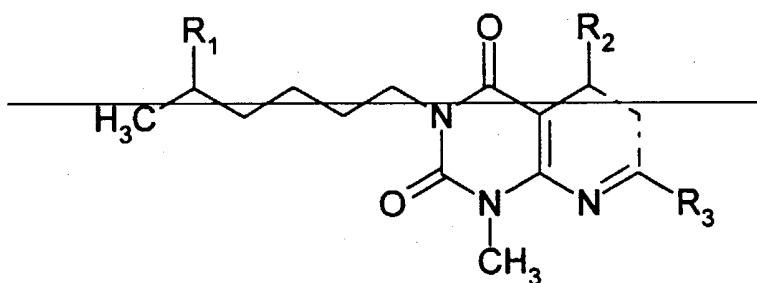
AMENDMENTS TO THE CLAIMS:

Upon entry, the following listing of claims will replace all prior versions and listings in the above-captioned patent application:

1. (Currently Amended) A therapeutic compound, including resolved enantiomers, diastereomers, tautomers, and salts ~~and solvates~~ thereof, having one of the following formulaeformula:



or



wherein:

R₁ is selected from a member of the group consisting of hydrogen, hydroxyl, methoxyl, acylamino group, cyano group, sulfo, sulfinyl, sulfhydryl (mercapto), sulfeno, sulfanilyl, sulfamyl, sulfamino, and phosphino, phosphinyl, phospho, phosphono and -NR_aR_b, wherein each of R_a and R_b may be the same or different and each is selected from the group consisting of

hydrogen and optionally substituted: C₍₁₋₂₀₎alkyl, C₍₃₋₁₂₎cycloalkyl, C₍₂₋₂₀₎alkenyl,

C₍₃₋₁₂₎cycloalkenyl, C₍₂₋₂₀₎alkynyl, aryl, heteroaryl, and heterocyclic group;

R₂ and R₃ are independently selected from a member of the group consisting of halo, oxo,

C₍₁₋₂₀₎alkyl, C₍₁₋₂₀₎hydroxyalkyl, C₍₁₋₂₀₎thioalkyl, C₍₁₋₂₀₎alkylthio, C₍₁₋₂₀₎alkylaminoalkyl,

C₍₁₋₂₀₎aminoalkyl, C₍₁₋₂₀₎aminoalkoxyalkenyl, C₍₁₋₂₀₎aminoalkoxyalkynyl, C₍₁₋₂₀₎diaminoalkyl,

C₍₁₋₂₀₎triaminoalkyl, C₍₂₋₂₀₎tetraaminoalkyl, C₍₁₋₂₀₎alkylamido, C₍₁₋₂₀₎alkylamidoalkyl,

C₍₁₋₂₀₎amidoalkyl, C₍₁₋₂₀₎acetamidoalkyl, C₍₂₋₂₀₎alkenyl, C₍₂₋₂₀₎alkynyl, C₍₁₋₂₀₎alkoxyl,

C₍₁₋₂₀₎alkoxyalkyl, C₍₁₋₂₀₎dialkoxyalkyl, and -NR_aR_b; and

R₄ may be hydrogen or an optionally substituted member of the group consisting of

C₍₁₋₂₀₎alkyl, C₍₃₋₁₂₎cycloalkyl, C₍₂₋₂₀₎alkenyl, C₍₃₋₁₂₎cycloalkenyl, C₍₂₋₂₀₎alkynyl, aryl, heteroaryl,

and heterocyclic group.

2. (Currently Amended) The therapeutic compound of claim 1, wherein R₂ and R₃ are

independently selected from a member of the group consisting of hydrogen, halo, thio, oxo,

C₍₁₋₁₀₎alkyl, C₍₁₋₁₀₎hydroxyalkyl, C₍₁₋₁₀₎thioalkyl, C₍₁₋₁₀₎alkylthio, C₍₁₋₁₀₎alkylamino,

C₍₁₋₁₀₎alkylaminoalkyl, C₍₁₋₁₀₎aminoalkyl, C₍₁₋₁₀₎aminoalkoxyalkenyl,

C₍₁₋₁₀₎aminoalkoxyalkynyl, C₍₁₋₁₀₎diaminoalkyl, C₍₁₋₁₀₎triaminoalkyl, C₍₂₋₁₀₎tetraaminoalkyl,

C₍₁₋₁₀₎aminotrialkoxyamino, C₍₁₋₁₀₎alkylamido, C₍₁₋₁₀₎alkylamidoalkyl, C₍₁₋₁₀₎amidoalkyl,

C₍₁₋₁₀₎acetamidoalkyl, C₍₂₋₁₀₎alkenyl, C₍₂₋₁₀₎alkynyl, C₍₁₋₁₀₎alkoxyl, C₍₁₋₁₀₎alkoxyalkyl, and

C₍₁₋₁₀₎dialkoxyalkyl.

3. (CANCELED)

4. (Currently Amended) The therapeutic compound of claim 37, wherein each of R₂ and R₃ is substituted with one or more members of the group consisting of hydroxyl, methyl,

carboxyl, furyl, furfuryl, biotinyl, phenyl, naphthyl, amino group, amido group, carbamoyl group, cyano group, sulfo, sulfonyl, sulfinyl, sulfhydryl, sulfeno, sulfanilyl, sulfamyl, sulfamino, phosphino, phosphinyl, phospho, phosphono, N-OH, -Si(CH₃)₃, C₍₁₋₃₎alkyl, C₍₁₋₃₎hydroxyalkyl, C₍₁₋₃₎thioalkyl, C₍₁₋₃₎alkylamino, benzyldihydrocinnamoyl group, benzoylethiobenzyl group, optionally substituted heterocyclic group and optionally substituted carbocyclic group.

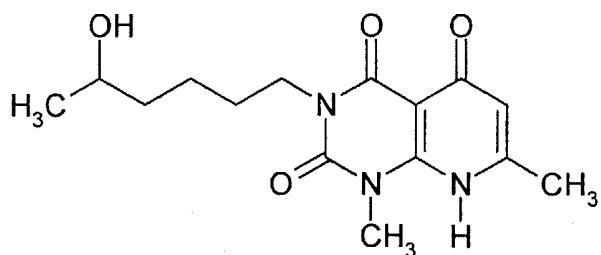
5. (Original) The therapeutic compound of claim 4, wherein the heterocyclic group or carbocyclic group is substituted with one or more members of the group consisting of halo, hydroxyl, nitro, SO₂NH₂, C₍₁₋₆₎alkyl, C₍₁₋₆₎haloalkyl, C₍₁₋₆₎alkoxyl, C₍₁₋₁₁₎alkoxyalkyl, C₍₁₋₆₎alkylamino, and C₍₁₋₆₎aminoalkyl.

6. (Original) The therapeutic compound of claim 4, wherein the heterocyclic group is a member selected from the group consisting of acridinyl, aziridinyl, azocinyl, azepinyl, benzimidazolyl, benzodioxolanyl, benzofuranyl, benzothiophenyl, carbazole, 4a H-carbazole, chromanyl, chromenyl, cinnolinyl, decahydroquinolinyl, dioxoindolyl, furazanyl, furyl, furfuryl, imidazolidinyl, imidazolyl, imidazolyl, 1H-indazolyl, indolenyl, indolinyl, indolizinyl, indolyl, 3H-indolyl, isobenzofuranyl, isochromanyl, isoindolinyl, isoindolyl, isoquinolinyl, isothiazolyl, isoxazolyl, morpholinyl, naphthyridinyl, octahydro-isoquinolinyl, oxazolidinyl, oxazolyl, oxiranyl, perimidinyl, phenanthridinyl, phenanthrolinyl, phenarsazinyl, phenazinyl, phenothiazinyl, phenoxathiinyl, phenoazinyl, phthalazinyl, piperazinyl, piperidinyl, 4-pipendonyl, piperidyl, pteridinyl, purinyl, pyranyl, pyrazinyl, pyrazolidinyl, pyrazolinyl, pyrazolyl, pyridazinyl, pyridinyl, pyridyl, pyridyl, pyrimidinyl, pyrrolidinyl, 2-pyrrolidonyl, pyrrolonyl, pyrrolyl, 2H-pyrrolyl, quinazolinyl, 4H-quinolizinyl, quinolinyl, quinoxalinyl, quinuclidinyl, β -carbolinyl, tetrahydrofuranyl, tetrahydroisoquinolinyl, tetrahydroquinolinyl,

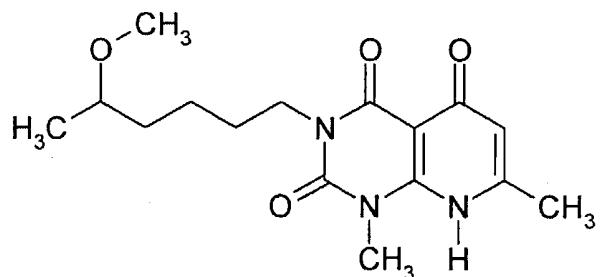
tetrazolyl, 6H-1,2,5-thiadiazinyl, 2H-,6H-1,5,2-dithiazinyl, thianthrenyl, thiazolyl, thienyl, thiophenyl, triazinyl, xanthenyl and xanthinyl.

7. (Previously presented) The therapeutic compound of claim 4, wherein the carbocyclic group is a member selected from the group consisting of adamantyl, anthracenyl, benzyl, bicyclo[2.2.1] heptanyl, bicyclo[2.2.1]hexanyl, bicyclo[2.2.2]octanyl, bicyclo[3.2.0]heptanyl, bicyclo[4.3.0]-nonanyl, bicyclo[4.4.0]decanyl, biphenyl, biscyclooctyl, cyclobutyl, cyclobutenyl, cycloheptyl, cycloheptenyl, cyclohexanedionyl, cyclohexenyl, cyclohexyl, cyclooctanyl, cyclopentadienyl, cyclopentanedionyl, cyclopentenyl, cyclopentyl, cyclopropyl, decalinyl, 1,2-diphenylethanyl, indanyl, 1-indanonyl, indenyl, naphthyl, napthalenyl, phenyl, resorcinolyl, stilbenyl, tetrahydronaphthyl, tetralinyl, tetralonyl, and tricyclododecanyl.

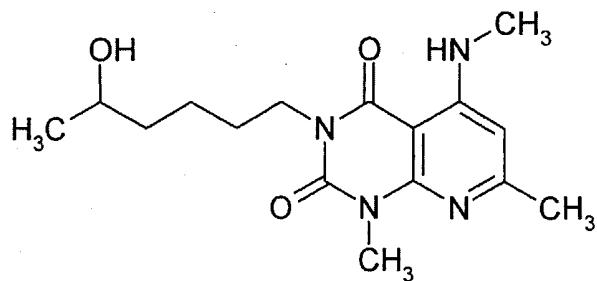
8. (Currently Amended) A compound, including resolved enantiomers, diastereomers, tautomers, and salts and solvates thereof, having the formula:



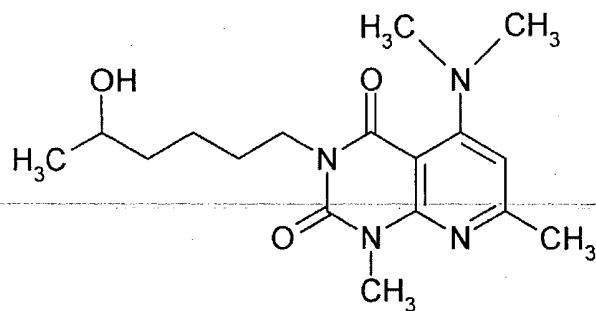
9. (Currently Amended) A compound, including resolved enantiomers, diastereomers, tautomers, and salts and solvates thereof, having the formula:



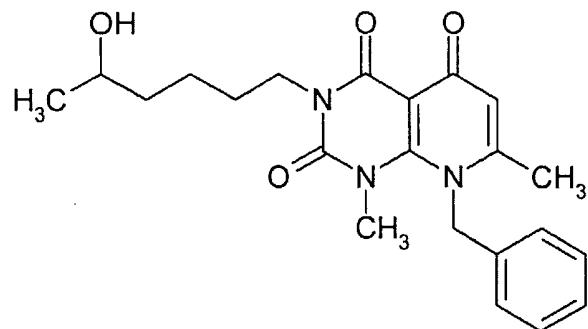
10. (Currently Amended) A compound, including resolved enantiomers, diastereomers, tautomers, and salts and solvates thereof, having the formula:



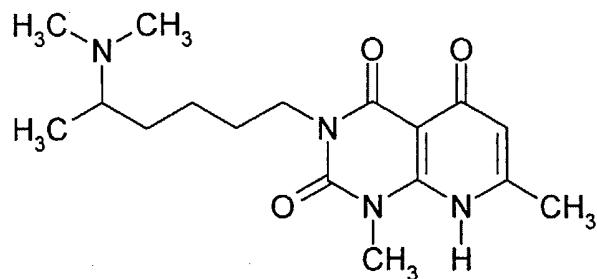
11. (Currently Amended) A compound, including resolved enantiomers, diastereomers, tautomers, and salts and solvates thereof, having the formula:



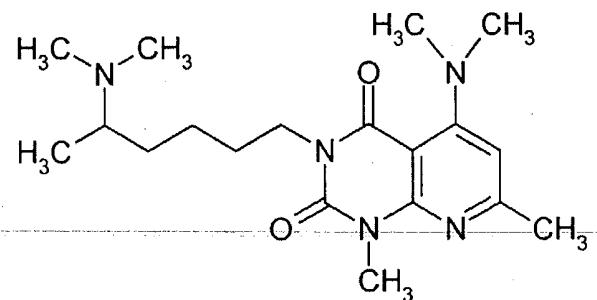
12. (Currently Amended) A compound, including resolved enantiomers, diastereomers, tautomers, and salts and solvates thereof, having the formula:



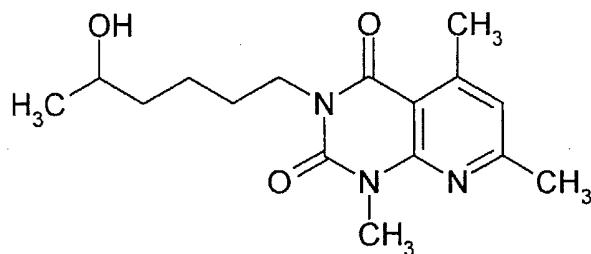
13. (Currently Amended) A compound, including resolved enantiomers, diastereomers, tautomers, and salts and solvates thereof, having the formula:



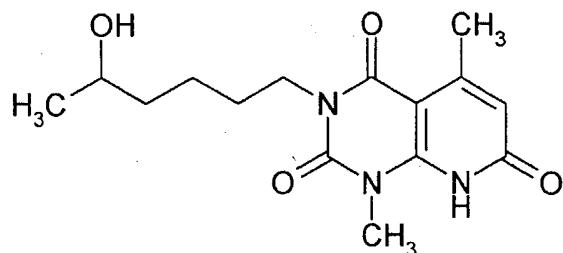
14. (Currently Amended) A compound, including resolved enantiomers, diastereomers, tautomers, and salts and solvates thereof, having the formula:



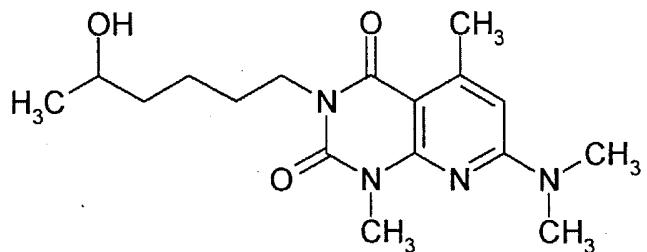
15. (Currently Amended) A compound, including resolved enantiomers, diastereomers, tautomers, and salts and solvates thereof, having the formula:



16. (Currently Amended) A compound, including resolved enantiomers, diastereomers, tautomers, and salts and solvates thereof, having the formula:



17. (Currently Amended) A compound, including resolved enantiomers, diastereomers, tautomers, and salts and solvates thereof, having the formula:



18. (Original) A pharmaceutical composition comprising the compound of claim 1 in admixture with a pharmaceutically acceptable carrier, adjuvant or vehicle.

Claims 19 to 27. (CANCELED)

28. (Currently Amended) A method for treating a T1 cell-mediated inflammatory response in a mammal in need of such treatment, the method comprising administering to the mammal a therapeutically effective amount of the compound of claim 1, ~~wherein said compound is capable of inhibiting an IL-12-mediated cellular process or activity, thereby inhibiting the inflammatory response.~~

29. (Original) The method of claim 28, wherein the inflammatory response is associated with a disease or condition selected from the group consisting of chronic inflammatory disease, chronic intestinal inflammation, arthritis, psoriasis, asthma and autoimmune disorders.

30. (Original) The method of claim 28, wherein said autoimmune disorder is selected from Type-1 IDDM, multiple sclerosis, rheumatoid arthritis, uveitis, inflammatory bowel disease, lupus disorders, and acute and chronic graft-versus-host disease.

31. (Original) The method of claim 28, wherein said mammal is a human.

32. (Currently Amended) A method for treating a T2 cell-mediated anti-inflammatory response in a mammal in need of such treatment, the method comprising administering to the mammal a therapeutically effective amount of the compound of claim 1, ~~wherein said compound is capable of inhibiting an IL-4 mediated cellular process or activity, thereby inhibiting anti-inflammatory response.~~

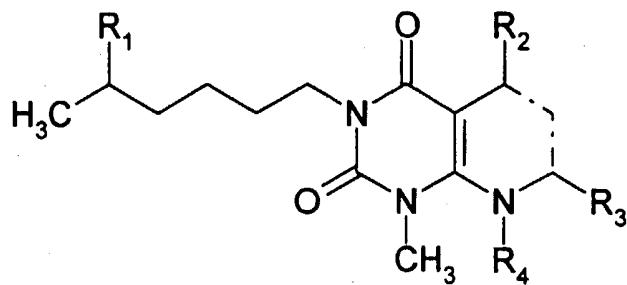
33. (Original) The method of claim 32, wherein the anti-inflammatory response is associated with a disease or condition selected from the group consisting of asthma, atopic dermatitis, hay fever, eczema, urticaria and food allergy.

34. (Original) The method of claim 33, wherein said disease is asthma.

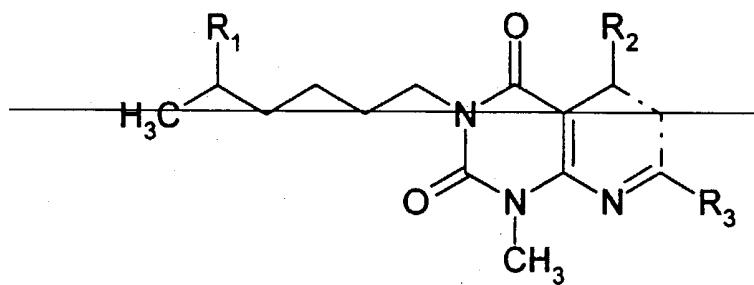
35. (Original) The method of claim 32, wherein said mammal is a human.

36. (Currently Amended) A method for treating NIDDM comprising a step of administering to a subject in need of such treatment a therapeutically effective amount of ~~a~~ the compound of claim 1.

37. (Currently Amended) A therapeutic compound, including resolved enantiomers, diastereomers, tautomers, and salts and solvates thereof, having one of the following formulae formula:



or



wherein:

R_1 is selected from a member of the group consisting of hydrogen, hydroxyl, methoxyl, acylamino group, cyano group, sulfo, sulfonyl, sulfanyl, sulfhydryl (mercapto), sulfeno, sulfanilyl, sulfamyl, sulfamino, phosphino, phosphinyl, phospho, phosphono and $-NR_aR_b$, wherein each of R_a and R_b may be the same or different and each is selected from the group consisting of hydrogen and optionally substituted: $C_{(1-20)}$ alkyl, $C_{(3-12)}$ cycloalkyl, $C_{(2-20)}$ alkenyl, $C_{(3-12)}$ cycloalkenyl, $C_{(2-20)}$ alkynyl, aryl, heteroaryl, and heterocyclic group;

R_2 and R_3 are independently selected from a unsubstituted or substituted member of the group consisting of methyl, ethyl, oxo, isopropyl, n-propyl, isobutyl, n-butyl, t-butyl, 2-hydroxyethyl, 3-hydroxypropyl, 3-hydroxy-n-butyl, 2-methoxyethyl, 4-methoxy-n-butyl, 5-hydroxyhexyl, 2-bromopropyl, 3-dimethylaminobutyl, 4-chloropentyl, methylamino, amino-methyl, and methylphenyl; and

R_4 may be hydrogen or an optionally substituted member of the group consisting of $C_{(1-20)}$ alkyl, $C_{(3-12)}$ cycloalkyl, $C_{(2-20)}$ alkenyl, $C_{(3-12)}$ cycloalkenyl, $C_{(2-20)}$ alkynyl, aryl, heteroaryl, and heterocyclic group.

REMARKS/ARGUMENTS

Solely in an effort to simplify further the issues on appeal and advance prosecution, Applicants have canceled claims 19-27 without prejudice or disclaimer of the subject matter they contain, and have amended claims 1, 2, 4, 8-17, 28, 32, 36 and 37 to encompass infringing subject matter.

Entry and favorable consideration of the above claim amendment(s) is believed to be appropriate and is hereby respectfully requested because such claim amendments: (a) place the application in condition for allowance; (b) do not raise any new issues requiring further search and/or consideration (since the amendments amplify or address issues previously discussed throughout the prosecution); and/or (c) do not present any additional claims without canceling a corresponding number of finally rejected claims. Upon entry of the above claim amendments, claims 1, 2, 4-18 and 28-38 will be pending. It is believed that the above claim amendments place this application in condition for allowance. Applicants reserve the right to file continuing applications for any canceled or unclaimed subject matter disclosed in the above-captioned patent application.

Please grant any extensions of time deemed necessary. The Commissioner is hereby authorized to charge any deficiency in the small-entity fee(s) filed, or asserted to be filed, or which should have been filed herewith (or with any paper filed hereafter) to Deposit Account No. 14-1140.

Respectfully submitted,
NIXON & VANDERHYE P.C.

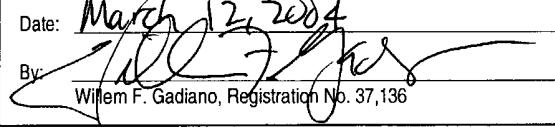
By: 
Willem F. Gadiano
Reg. No. 37,136

WFG:ewm
1100 North Glebe Road, 8th Floor
Arlington, VA 22201-4714
Telephone: (703) 816-4000

CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that this document (including any paper referred to as being attached or enclosed) is being sent to the U.S. Patent and Trademark Office via facsimile transmission to (703) 872-9306 on the date indicated below, with a coversheet addressed to Commissioner for Patents, U.S. Patent and Trademark Office, Washington, D.C., 20231.

Date: March 12, 2004

By: 
Willem F. Gadiano, Registration No. 37,136